

LAND USE SCENARIOS COMPARISON Road Deficiency and Cost Estimate Forecasts

INTRODUCTION

This attachment contains an operational and needs assessment for roadway improvements in the Year 2020 for each of the eight land use scenarios. It identifies the amount of roads forecasted to operate at an unacceptable level of service (LOS) in the year 2020, as well as estimated costs associated with improving those roads to an acceptable LOS. Information is organized as follows:

- Road Deficiency and Cost Estimate Forecasts
- Traffic Forecast Models
- Traffic Model Assumptions
- Summary Tables: Level of Service (LOS) Forecasts / Cost Estimates
- Level of Service (LOS) Forecast Maps

ROAD DEFICIENCY AND COST ESTIMATE FORECASTS

The first section of this attachment identifies the amount and location of roads forecasted to operate at an unacceptable level of service, defined as LOS E or F, assuming full buildout of each land use scenario in the year 2020. This section also contains cost estimates associated with improving deficient roads to provide an acceptable level of service (LOS D). LOS forecasts and cost estimates are summarized by the County's three subareas:

- North County Communities
- East County Communities
- Backcountry Communities

Summary Tables F-9 through F-11 includes information on LOS forecasts and their associated cost estimates by community.

All information in this section is based on preliminary traffic forecast models conducted by the San Diego Association of Governments (SANDAG) for GP2020, which are explained in the second section of this attachment. Following the selection of a residential land use distribution map, the traffic forecast model will be fine-tuned for the purpose of road network planning.

Methods used to prepare cost estimates are also explained in the second section of this attachment. Please note that cost estimates are based on average road construction costs for County CE Roads, State Highways, and State Freeways and do not represent actual construction cost estimates for specific road segments. In addition, cost estimates are based on a single method for improving deficient roads – widening existing roads. As shown in the Road Network Planning Process example (see Attachment C), a preferred road network will probably contain a combination of new and improved roads, and new road construction costs could be higher than cost estimates for widening existing roads.

Base Year 2000

The Base Year 2000 scenario shows a total of 197 lane-miles of road at an unacceptable level of service, or LOS E/F. Roadways at LOS E/F are primarily located in North County – specifically Fallbrook, North County Metro, and San Dieguito. Lakeside/Pepper Drive-Bostonia in East County also has a significant number of LOS E/F lane miles. The estimated cost to improve the County’s existing deficient roads to an acceptable level of service is approximately \$570 million.

Table F-1: Traffic Forecast for Base Year 2000¹

<i>Road Type</i>	<i>Lane Miles LOS E/F</i>			<i>Estimated Cost (millions)</i>		
	<i>North</i>	<i>East</i>	<i>Back</i>	<i>North</i>	<i>East</i>	<i>Back</i>
County	93	58	0.0	\$ 154	\$ 90	\$0.0
State	14	18	0.0	\$ 168	\$ 111	\$0.0
Freeway	1	12	0.0	\$ 5	\$ 43	\$0.0
Subtotals	108	88	0.0	\$ 326	\$ 244	\$0.0
Countywide Totals	197			\$ 570		

Existing General Plan

The Existing General Plan produces a total of 1,171 miles of lane-miles at an unacceptable level of services, or LOS E/F. Roadways at LOS E/F are primarily located in North County communities – specifically Pendleton-DeLuz, Fallbrook, and North County Metro. There are also high levels of LOS E/F lane miles in the East County communities of Lakeside/Pepper Drive-Bostonia and Jamul/Dulzura. The most impacted Backcountry subregion is Palomar/North Mountain – which contains nearly half of the deficient roads in Backcountry communities.

Table F-2: Traffic Forecast for Existing General Plan

<i>Road Type</i>	<i>Lane Miles LOS E/F</i>			<i>Estimated Cost (millions)</i>		
	<i>North</i>	<i>East</i>	<i>Back</i>	<i>North</i>	<i>East</i>	<i>Back</i>
County	322	154	103	\$ 581	\$ 323	\$ 165
State	119	44	135	\$ 2,445	\$ 489	\$ 2,248
Freeway	238	56	0	\$ 1,118	\$ 349	\$0
Subtotals	679	254	238	\$ 4,145	\$ 1,161	\$ 2,412
Countywide Totals	1,171			\$ 7,718		

Under the Existing General Plan, the estimated cost to improve the County’s deficient roads at is about \$7.7 billion dollars. A notable feature of this scenario is the high cost of upgrading or building new roads in Backcountry communities to service its projected population. As Table

¹ All numbers in Attachment F tables are rounded. Therefore, totals may vary slightly from subregional sums.

F-10 shows, estimated costs are highest at \$1.45 billion in the Palomar/North Mountain subregion.

GP2020 Working Copy Maps

Evaluations for the December 2002 and August 2003 Working Copy maps were consolidated for comparison purposes. Although these maps are similar in terms of overall population growth and distribution, the August 2003 map includes an increase in density for some property referrals evaluated after the June 25, 2003 Board hearing.

The December 2002 Working Copy map produces a total of 649 lane-miles of roadway at LOS E/F. Roadways at LOS E/F are primarily located in North County communities – specifically Fallbrook, North County Metro, and Pendleton-DeLuz. There are also high levels of LOS E/F in the East County communities of Lakeside/Pepper Drive-Bostonia, Jamul/Dulzura and Spring Valley. The most impacted subregion in the Backcountry is North Mountain – which contains about one third of the LOS E/F lane miles in Backcountry communities.

Under the December 2002 Working Copy map, the estimated cost to improve the County's deficient roads is about \$2.26 billion dollars. A notable feature of this scenario is the low cost of improving roads in Backcountry communities due to the reduced population growth and subsequent reduction in forecasted traffic volumes on Backcountry roads when compared to the Existing General Plan.

Table F-3: Traffic Forecast for December 2002 Working Copy Map

<i>Road Type</i>	<i>Lane Miles LOS E/F</i>			<i>Estimated Cost (millions)</i>		
	<i>North</i>	<i>East</i>	<i>Back</i>	<i>North</i>	<i>East</i>	<i>Back</i>
County	222	129	4	\$399	\$ 274	\$ 7
State	51	25	10	\$ 596	\$ 183	\$63
Freeway	170	38	0	\$ 515	\$ 227	\$0
Subtotals	444	192	14	\$1510	\$ 684	\$70
Countywide Totals	649			\$2,264		

The August 2003 Working Copy map produces 664 lane-miles of roads at LOS E/F. Roads at LOS E/F are primarily located in North County communities, specifically Fallbrook, North County Metro, and Pendleton-DeLuz. There are also high levels of LOS E/F lane miles in the East County communities of Lakeside/Pepper Drive-Bostonia, Jamul/Dulzura and Spring Valley. The most impacted subregion in the Backcountry is North Mountain – which contains about one third of the deficient roads in Backcountry communities.

Under the August 2003 Working Copy map, the estimated cost to improve the County's deficient roads is about \$2.32 billion dollars. A notable feature of this scenario is the increased costs to upgrade roads in North County when compared to similar costs in the December 2002 Working Copy Scenario.

Table F-4: Traffic Forecast for August 2003 Working Copy Map

<i>Road Type</i>	<i>Lane Miles LOS E/F</i>			<i>Estimated Cost (millions)</i>		
	<i>North</i>	<i>East</i>	<i>Back</i>	<i>North</i>	<i>East</i>	<i>Back</i>
County	227	129	7	\$401	\$274	\$7
State	55	25	9	\$632	\$183	\$60
Freeway	177	38	0	\$536	\$227	\$0
Subtotals	460	192	13	\$1568	\$684	\$67
Countywide Totals	664			\$2,320		

Board Referrals Maps

Board Referrals Scenario (Scenario #5): This scenario was used as a base map for land use scenarios 5 through 8. It produces a total of 685 lane-miles of roadway at LOS E/F. Roadways at LOS E/F are primarily located in North County communities – specifically Fallbrook, North County Metro, and Pendleton-DeLuz. There are also high levels of LOS E/F in the East County communities of Lakeside/Pepper Drive-Bostonia, Spring Valley, and Jamul/Dulzura. The most impacted subregion in the Backcountry is North Mountain.

Under the Board Referrals Scenario, the estimated cost to improve the County's deficient roads is about \$2.4 billion dollars. A notable feature of this scenario is the increased cost (when compared to the Working Copy maps) of upgrading roads in North County communities due to an increase in projected population growth.

Table F-5: Traffic Forecast for Board Referrals

<i>Road Type</i>	<i>Lane Miles LOS E/F</i>			<i>Estimated Cost (millions)</i>		
	<i>North</i>	<i>East</i>	<i>Back</i>	<i>North</i>	<i>East</i>	<i>Back</i>
County	242	133	4	\$427	\$276	\$7
State	55	25	9	\$666	\$184	\$60
Freeway	177	39	0	\$536	\$231	\$0
Subtotals	475	197	13	\$1628	\$691	\$67
Countywide Totals	685			\$2,387		

Board Referrals Scenario with Pipelined Projects (Scenario #6): This scenario produces a total of 696 lane-miles of roadway at LOS E/F. Roadways at LOS E/F are primarily located in North County communities such as Fallbrook, North County Metro and Pendleton-DeLuz. There are also high levels of LOS E/F lane miles in the East County communities of Lakeside/Pepper Drive-Bostonia, Spring Valley, and Jamul/Dulzura. The most impacted subregion in the Backcountry is North Mountain.

Under the Pipelined Projects Scenario, the estimated cost to improve the County's deficient roads at buildout is about \$2.43 billion dollars. This scenario shows increased costs to upgrade roads primarily in North County communities due to an increase in projected population growth.

Table F-6: Traffic Forecast for Pipelined Projects

<i>Road Type</i>	<i>Lane Miles LOS E/F</i>			<i>Estimated Cost (millions)</i>		
	<i>North</i>	<i>East</i>	<i>Back</i>	<i>North</i>	<i>East</i>	<i>Back</i>
County	252	133	4	\$457	\$281	\$7
State	55	26	9	\$666	\$188	\$61
Freeway	177	39	0	\$536	\$231	\$0
Subtotals	485	198	13	\$1658	\$700	\$68
Countywide Totals	696			\$2,426		

Board Referrals Scenario Without 80s and 160s (Scenario #7): This scenario produces 708 lane-miles of roadway at LOS E/F. Roadways at LOS E/F are primarily located in North County communities such as Fallbrook, North County Metro, and Pendleton-DeLuz. There are also high levels of LOS E/F lane miles in the East County communities of Lakeside/Pepper Drive-Bostonia, Spring Valley, and Jamul/Dulzura. The most impacted subregion in the Backcountry is North Mountain. As a result of increased density within Rural Lands, LOS E/F lane miles in Backcountry increase 30 percent over the amount under the Board Referrals scenario

Under this scenario, the estimated cost to improve the County's deficient roads is about \$2.6 billion dollars. A notable feature of this scenario is the substantial increase in the estimated costs to improve North County roads. The costs to bring North County roads up to an acceptable level of service under this scenario are \$189 million more than the Board Referrals scenario and over \$300 million more than the December 2002 Working Copy scenario.

Table F-7: Traffic Forecast for Without 80s and 160s

<i>Road Type</i>	<i>Lane Miles LOS E/F</i>			<i>Estimated Cost (millions)</i>		
	<i>North</i>	<i>East</i>	<i>Back</i>	<i>North</i>	<i>East</i>	<i>Back</i>
County	242	137	4	\$429	\$287	\$9
State	71	25	13	\$852	\$185	\$73
Freeway	177	39	0	\$536	\$233	\$0
Subtotals	490	201	17	\$1817	\$705	\$81
Countywide Totals	708			\$2,603		

Board Referrals Scenario with Pre-FCI (Scenario #8): This scenario produces 746 miles of roadway at LOS E/F. Roadways at LOS E/F that are primarily located in North County communities such as Fallbrook, North County Metro and Pendleton-DeLuz. There are also high levels of LOS E/F lane miles in the East County communities of Lakeside, Spring Valley, and Jamul/Dulzura. The amount of LOS E/F lane miles in Backcountry communities is higher than in other scenarios because of the application of Pre-FCI semi-rural densities to land within the Cleveland National Forest.

The estimated cost to improve the County's deficient roads for the Pre-FCI scenario is about \$2.87 billion dollars. A notable feature of this scenario is that the substantial cost of improving roads has a significant effect on all three subareas.

Table F-8: Traffic Forecast for Pre-FCI

<i>Road Type</i>	<i>Lane Miles LOS E/F</i>			<i>Estimated Cost (millions)</i>		
	<i>North</i>	<i>East</i>	<i>Back</i>	<i>North</i>	<i>East</i>	<i>Back</i>
County	262	138	4	\$469	\$286	\$12
State	77	26	15	\$1,007	\$188	\$97
Freeway	177	46	0	\$536	\$277	\$0
Subtotals	516	211	19	\$2,012	\$751	\$109
Countywide Totals	746			\$2,872		

TRAFFIC FORECAST MODELS

Purpose

In October 2003, the Board of Supervisors requested that staff prepare an analysis to evaluate and compare traffic impacts for Base Year 2000 conditions and seven future land use scenarios. For each land use scenario, full development (or "buildout") of the land use plan capacity within the unincorporated County in the year 2020 was assumed while the road network remained constant. Results were used to compare traffic volumes and levels of service and to identify future County road improvement needs for each land use scenario. Generalized comparative cost estimates to construct these improvement needs were then prepared.

Methods

The GP2020 traffic model used the San Diego Association of Governments' (SANDAG) Series 10 Regional Forecast model. County staff and the project consultants reviewed the SANDAG Series 10 database in order to specify changes needed to reflect the County's land uses and roadway system. The County's Department of Public Works (DPW) assisted SANDAG in providing data for the model's roadway network, while the Department of Planning and Land Use (DPLU) supplied SANDAG with land use data for future land use scenarios 2 through 8.

The traffic model assumed that future buildout occurred for each land use scenario in the year 2020. Next it estimated the traffic volumes that would be generated by each scenario on the unincorporated County's currently built Circulation Element (CE) roads. These results were then used to determine the operational level of service (LOS) for each currently built CE road, State highway and freeway in the unincorporated County. When roads operated at an unacceptable LOS², the number of additional lane-miles needed to improve the traffic flow to an acceptable level was calculated. Finally, for each scenario, an estimated cost was determined for constructing the additional lane-miles required to bring roadways up to an acceptable level of

² The GP2020 standard for an acceptable Level of Service is LOS A through D. LOS E or F is not acceptable.

service. A comparison of these generalized costs provides an effective way to evaluate the various land use scenarios from a traffic perspective.

Description

The GP2020 traffic model is composed of three primary parts: (1) SANDAG's Series 10 Transportation Model, (2) the County's roadway network, and (3) the County's land use scenarios. These three components are summarized below.

SANDAG Series 10 Transportation Model

The Series 10 Transportation Model is used by SANDAG to forecast transportation impacts in San Diego County through the year 2030. Because it provides traffic projections for the CE road networks for all jurisdictions in the San Diego region, it serves as an appropriate basis for the GP2020 traffic model. The Series 10 model also incorporates trips that come in and out of the San Diego region from Riverside, Orange and Imperial counties as well as Mexico.

Traffic projections are determined by first analyzing the number of vehicular trips that would be generated by existing and proposed land uses (trip generation) and their likely distribution of traffic. These trip generation rates are based on SANDAG Series 10 regional trip rate factors, which vary according to the type of land use and have been compiled from regional surveys. County staff worked with SANDAG to match SANDAG's regional land use categories with the unincorporated County's land use designations. Projected development on vacant lands was based on land use designations from each of the land use scenarios. Trip generation for existing and currently proposed tribal projects was included in the model.

Roadway Network

In order to obtain estimates of the County's future road needs, modeling for each land use scenario was based upon the County's existing road network, including those County road projects that are currently scheduled and funded (Capital Improvement Plan projects). The GP2020 traffic model for city roads and state highways/freeways located outside the unincorporated area was based on Series 10 forecasts for the year 2020 using a "revenue constrained" set of assumptions that were identified in SANDAG's Regional Transportation Plan. These assumptions provided a conservative estimate of the future road improvements that would be constructed. The resulting roadway network established a baseline upon which operations without additional improvements could be estimated and future road improvement needs could be identified.

Traffic volumes on the County's CE roads were calculated as the number of average daily trips (ADT) that pass through a particular road segment within a 24-hour period. County roadway design standards provided the basis for the level of service calculations. State standards were used to evaluate traffic volumes on state highways and freeways, and those standards focus on the morning and afternoon peak hour periods.

Land Use Scenarios

Each land use scenario was analyzed at its full plan capacity and then adjusted by potential building constraints that could impact yield. Only residential densities varied among the seven scenarios while the road network remained constant. This approach allowed staff to compare the merits of each of the proposed land use scenarios.

Traffic Modeling Results

Traffic model results are described in terms of level of service for roadway segments and cost estimates for improving roadways to the point where they meet established LOS standards. Although computer modeling represents the best technique currently available, the end result is only a projection based upon the various inputs provided. The traffic model represents a very complex process and deals with a large amount of data. Often even a minor change can result in a slightly different outcome. Consequently, comparisons between the various scenarios should be made at a very general level.

Level of Service

Level of Service measures the quality of operating conditions on our roadways. Criteria include speed, travel time, freedom to maneuver, traffic interruptions, comfort, convenience, and safety. These criteria are used to determine a road's capacity.³ When traffic volumes approach or exceed capacity, the road operates at an unacceptable level of service evidenced by stop-and-go traffic, added congestion and delays, or even gridlock during peak traffic periods. Traffic volume information was compared to the capacity of each road segment to determine whether the road would operate at an acceptable level of service.

Tables F-9 to F-11 present countywide and community-level summaries of the future level of service for each land use scenario. The various levels of service (LOS) are defined via the County's Public Road Standards. As part of the GP2020 update, the Board endorsed levels A through D as acceptable. Therefore, only road segments within each scenario that operated at LOS E or F were evaluated further. The length and number of lanes for each segment were converted to lane-miles and analyzed to determine the additional number of lane-miles required to bring the road's performance up to an acceptable level of service.

A road's level of service can be improved in a number of ways. For example, the number of lanes can be increased or an additional road can be built. For comparison purposes, staff chose to use the number of additional lane-miles that would be necessary to improve the road to a Level of Service D. While this approach is not always the preferred method, it does provide a consistent platform for a comparative analysis of the land use scenarios. Once a preferred land use alternative is identified, additional work will be performed to identify a preferred road network. A sample of a proposed process for developing preferred road networks for each planning group is provided in Attachment C.

³ *Public Road Standards*, Table 1, County of San Diego, Department of Public Works.

Comparative Costs

For comparison purposes, general cost estimates were prepared for each land use scenario based upon the estimated number of additional needed lane-miles of roadway. General cost-per-lane-mile factors were assumed for each type of roadway: County road, State highway and freeway. The cost-per-lane-mile factors were based upon estimates made in SANDAG's Regional Transportation Plan and recent costs incurred for County road improvement projects. Actual costs for specific improvements could vary significantly based upon a more detailed assessment of the right-of-way requirements, relocation and/or land acquisition costs, topography, and environmental conditions. The cost per lane-mile assumptions are summarized in the Table below:

Road Classification	Estimated Cost per Lane Mile
County Circulation Element Roads	\$3.0 million
State Highways	\$8.0 million
State Freeways	\$12.0 million

Tables F-10 and F-11 present a comparative cost analysis for bringing the unincorporated County's road network up to an acceptable level of service for each land use scenario.

TRAFFIC MODEL ASSUMPTIONS

ROAD NETWORK ASSUMPTIONS

- The SANDAG Series 10 forecast model predicts results for the year 2030 and the intervening years of 2010 and 2020. For the purposes of GP2020 traffic modeling, the Series 10 year 2020 traffic forecasts were utilized.
- TAZ Format: The larger, more general Series 10 regional Traffic Area Zones (TAZs) were subdivided into smaller units/zones in the unincorporated area in order to enhance the accuracy and validity of the traffic forecast analysis.
- Unincorporated Area:
 - County Roads: Currently built Circulation Element (CE) roadway system plus capital improvement projects that have been scheduled and funded.
 - State Roads: Currently built highway and freeway system plus Caltrans revenue constrained capital improvements scheduled through 2005 (includes State Route 125 and the Foothill Highway).
- Incorporated Areas:
 - City Roads: SANDAG Series 10 roadway network reflecting revenue constrained improvements through the year 2020.
 - State Roads: SANDAG Series 10 roadway network reflecting revenue constrained improvements through the year 2020.
- State Roads:
 - State highways: State roadways with at grade intersections.
 - State freeways: State roadways that are fully access controlled with interchanges.
- Level of Service (LOS) and corresponding capacities:
 - County CE roads: As defined by Table 1 in Public Road Standards. LOS is based upon daily 24-hour conditions.
 - State facilities: Based upon peak hour/peak direction traffic volumes and relationship to assumed peak hour capacities. The resulting volume to capacity relationship (V/C ratio) is used to determine the LOS.
- Lane Miles Needed to improve a segment of road with a poor LOS to an acceptable LOS:
 - County CE roadways: When a segment of a County CE roadway measured LOS E or F, the amount of daily 24-hour volume in excess of the roadway's capacity was utilized to determine the number of additional lanes that would be required for the roadway to operate at an acceptable level of service (LOS D). The number of additional lanes

required was then multiplied by the length of the roadway segment to derive additional “lane miles needed.”

- State highways and freeways: The process of calculating additional lane miles for State facilities was similar to that applied to County CE roadways, but was based upon excess volumes over capacity in the peak hour and peak direction of traffic flow on the highway or freeway.

LAND USE ASSUMPTIONS

- Unincorporated Area:
 - Base Year 2000: Levels of Service for existing CE roads were derived from the SANDAG Series 10 base year 2000 traffic model.
 - Existing Policies:
 - Buildout of Existing General Plan as predicted by DPLU population model. Data provided to SANDAG by TAIC (DPLU consultant).
 - Trip generation rates based on SANDAG regional trip rate factors.
 - DPLU Land Use designations are assigned a corresponding SANDAG Land Use code.
 - Vacant lands are given a SANDAG Land Use code according to the designation assigned on the General Plan Land Use Map. All other lands are assigned a SANDAG Land Use code based on the land’s actual use, rather than the designation assigned by the map.
 - GP2020:
 - Buildout of seven scenarios as predicted by DPLU population model without regional controls. Data provided to SANDAG by TAIC (DPLU consultant).
 - Trip generation rates based on SANDAG regional trip rate factors.
 - DPLU Land Use designations were assigned a corresponding SANDAG Land Use code.
 - Vacant lands were given a SANDAG Land Use code according to the designation assigned on the GP2020 Land Use Map. All other lands are assigned a SANDAG Land Use code based on the land’s actual use, rather than the designation assigned by the map.
- Incorporated Areas: Levels of development by the year 2020 as predicted by SANDAG 2030 Series 10 forecast model without the use of regional control totals.
- Tribal Lands: Buildout of known or currently proposed tribal gaming facilities.
- Areas outside San Diego County: Year 2020 levels of trip attractions/productions based on SANDAG Series 10 forecasts for Riverside, Orange, and Imperial Counties and Mexico.

COST ASSUMPTIONS

- Generalized system-wide estimates were used to represent the costs necessary to improve the road network to an acceptable level of service. Actual costs for specific improvements would vary significantly based upon more detailed assessments of right-of-way requirements, topography, and environmental conditions.
- Cost estimates are primarily based on SANDAG 2030 Regional Transportation Plan and an analysis of the County's roadway improvement costs over the last five years.
- Cost estimates are based on the number of additional lane miles that are projected to be required to address deficient roadways operating at Level of Service E or F within the unincorporated county.
- For the purposes of this study, cost estimates were derived by calculating the number of additional lane miles that would be necessary to improve the road to Level of Service D. This approach (roadway widening) is not always the preferred method, but for analytical purposes, it provides a consistent and comparable measure of the costs to alleviate unacceptable levels of service.

Road Classification	Estimated Cost per Lane Mile
County Circulation Element Roads	\$3 million
State Highways	\$8 million
State Freeways	\$12 million

ATTACHMENT F
Table F-9
Level of Service Summary
Miles of Roadway within Unincorporated County

ALTERNATIVE	Total Miles	LOS A-C	LOS D	LOS E-F	Percent of Totals Miles at LOS E-F
1) Base Year 2000					
County CE Roads	967	834	60	73	8%
State Highways	257	220	14	23	9%
State Freeways	109	102	6	2	2%
TOTAL	1,332	1,156	80	98	7%
2) Existing General Plan w/ CIP Network					
County CE Roads	973	592	111	270	28%
State Highways	254	78	12	164	64%
State Freeways	129	66	20	43	33%
TOTAL	1,356	736	143	477	35%
3) December 2002 Working Copy Map w/ CIP Network					
County CE Roads	973	720	94	159	16%
State Highways	254	170	24	60	24%
State Freeways	129	76	25	29	22%
TOTAL	1,356	966	143	248	18%
4) August 2003 Working Copy Map w/ CIP Network					
County CE Roads	973	720	90	162	17%
State Highways	254	170	30	54	21%
State Freeways	129	75	24	30	23%
TOTAL	1,356	965	144	247	18%
5) BOS Referrals w/ CIP Network					
County CE Roads	973	712	89	172	18%
State Highways	254	170	30	54	21%
State Freeways	129	75	24	30	23%
TOTAL	1,356	957	143	256	19%
6) BOS Referrals Plus Pipeline Projects w/ CIP Network					
County CE Roads	973	704	95	174	18%
State Highways	254	170	30	54	21%
State Freeways	129	73	26	30	23%
TOTAL	1,356	947	151	258	19%
7) BOS Referrals Minus 80's/160's w/ CIP Network					
County CE Roads	973	707	93	173	18%
State Highways	254	165	35	54	21%
State Freeways	129	73	26	30	23%
TOTAL	1,356	945	154	257	19%
8) BOS Referrals Pre-FCI w/ CIP Network					
County CE Roads	973	681	109	183	19%
State Highways	254	163	27	65	26%
State Freeways	129	72	25	32	25%
TOTAL	1,356	916	160	280	21%

ATTACHMENT F
Table 10

COMMUNITY PLANNING AREA	BASE YEAR 2000			EXISTING GENERAL PLAN			WORKING COPY MAPS						BOS REFERRALS SCENARIOS											
							December '02 Map			August '03 Map			BOS Referrals			Pipeline Projects			Without 80s & 160s			Pre-FCI		
	LOS E/F Lane Miles	Lane Miles Needed	Cost (\$M)	LOS E/F Lane Miles	Lane Miles Needed	Cost (\$M)	LOS E/F Lane Miles	Lane Miles Needed	Cost (\$M)	LOS E/F Lane Miles	Lane Miles Needed	Cost (\$M)	LOS E/F Lane Miles	Lane Miles Needed	Cost (\$M)	LOS E/F Lane Miles	Lane Miles Needed	Cost (\$M)	LOS E/F Lane Miles	Lane Miles Needed	Cost (\$M)	LOS E/F Lane Miles	Lane Miles Needed	Cost (\$M)
Bonsall	12.0	11.9	84	59.3	61.3	396	36.7	43.7	247	44.6	46.3	270	47.3	49.6	290	47.5	49.7	291	47.3	49.9	293	47.8	59.1	293
Fallbrook	24.1	12.6	39	114.1	93.7	589	94.2	57.4	305	94.2	57.4	305	94.2	59.6	323	94.2	59.6	323	94.2	61.1	338	95.3	85.9	354
N. County Metro	25.6	13.0	43	92.5	53.8	331	52.4	29.1	138	52.4	29.1	138	59.3	32.6	148	68.2	42.0	176	59.9	34.7	163	61.5	54.6	177
Pala-Pauma	0.0	0.0	0	70.3	159.5	1,226	5.9	4.2	25	5.9	4.2	25	5.9	4.2	25	5.9	4.2	25	15.1	14.2	109	26.7	35.3	213
Pendleton-De Luz	1.1	0.6	2	156.8	77.1	839	133.0	34.4	398	133.0	34.4	398	133.0	34.4	398	133.0	34.4	398	133.0	34.4	398	133.0	34.7	398
Rainbow	0.0	0.0	0	6.7	2.7	14	7.5	3.1	15	7.5	3.1	15	7.5	3.1	15	7.5	3.1	15	7.5	3.1	15	7.5	5.6	23
Ramona	11.1	13.6	96	68.5	82.2	562	39.0	38.2	261	40.2	40.4	290	40.2	40.4	290	41.2	40.9	291	46.3	49.6	360	50.1	62.9	403
San Dieguito	23.6	15.4	46	41.8	24.8	74	39.1	23.4	70	39.1	23.4	70	41.4	24.9	75	41.4	24.9	75	41.4	24.9	75	41.4	41.4	75
Valley Center	10.9	5.4	16	69.1	37.6	113	36.1	16.8	50	42.5	19.0	57	45.7	21.4	64	45.7	21.4	64	45.7	22.4	67	52.9	52.9	76
North County	108.3	72.6	\$326	679.2	592.6	\$4,145	443.8	250.4	\$1,510	459.5	257.3	\$1,568	474.5	270.2	\$1,628	484.6	280.2	\$1,658	490.4	294.3	\$1,817	516.3	432.5	\$2,012
Alpine	4.0	2.0	6	13.2	8.0	44	8.3	6.1	18	8.3	6.1	18	8.3	6.1	18	8.3	6.1	18	9.8	6.9	21	9.8	9.8	21
Barona	5.7	2.9	9	13.7	9.7	29	13.7	9.7	29	13.7	9.7	29	13.7	9.7	29	13.7	9.7	29	13.7	9.7	29	13.7	13.7	29
County Islands	8.7	2.1	25	6.3	1.7	20	6.3	1.7	20	6.3	1.7	20	7.5	2.0	23	7.5	2.0	23	7.5	2.0	23	7.5	2.0	23
Crest-Dehesa	4.1	2.1	6	17.9	10.3	31	12.1	6.8	20	12.1	6.9	21	16.4	7.5	22	16.4	9.1	27	16.4	9.1	27	16.4	16.4	27
Jamul-Dulzura	5.2	3.1	25	40.5	48.8	352	22.8	16.7	116	22.8	16.7	116	23.1	17.0	118	22.8	16.9	118	22.8	16.9	118	22.8	20.3	118
Lakeside	27.7	17.6	99	85.6	61.7	373	54.0	37.1	189	54.0	37.1	189	54.0	37.1	189	55.0	37.6	192	56.6	38.4	195	65.5	57.3	242
Otay	0.0	0.0	0	17.8	20.9	63	19.3	22.4	74	19.3	22.4	74	19.3	22.4	74	19.3	22.4	74	19.3	22.4	74	19.3	17.8	72
Spring Valley	9.7	5.3	18	26.0	14.9	124	25.4	15.1	126	25.4	15.1	126	25.4	15.1	126	25.4	15.1	126	25.4	15.1	126	25.4	18.4	126
Sweetwater	10.3	5.3	26	10.0	5.8	38	10.0	5.8	38	10.0	5.8	38	10.0	5.8	38	10.0	5.8	38	10.0	5.8	38	10.6	10.3	39
Valle De Oro	12.9	7.1	31	23.3	16.1	88	19.8	11.8	53	19.8	11.8	53	19.8	11.8	53	19.8	11.8	53	19.8	11.8	53	19.8	18.8	53
East County	88.4	47.5	\$244	254.3	197.9	\$1,161	191.5	133.1	\$684	191.5	133.2	\$684	197.3	134.4	\$691	198.1	136.5	\$700	201.2	138.0	\$705	210.8	184.8	\$751
Central Mountain	0.0	0.0	0	39.2	66.2	530	1.2	0.7	6	1.2	0.7	6	1.2	0.7	6	1.2	0.7	6	1.1	0.7	6	2.9	2.5	21
Desert/Borrego	0.0	0.0	0	57.5	32.1	96	3.9	2.2	7	3.9	2.2	7	4.0	2.3	7	4.0	2.3	7	4.3	2.9	9	4.1	4.1	12
Julian	0.0	0.0	0	33.7	42.6	320	1.0	0.5	4	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	1.0	0.5	4	1.3	1.7	13
Mountain Empire	0.0	0.0	0	3.8	1.9	13	2.9	1.5	12	2.9	1.5	12	2.9	1.5	12	3.1	1.6	13	3.2	1.7	13	3.1	1.6	13
North Mountain	0.0	0.0	0	103.7	193.0	1,453	4.7	5.2	42	4.7	5.4	43	4.7	5.4	43	4.7	5.4	43	7.3	6.2	50	7.3	6.2	50
Backcountry	0.0	0.0	\$0	237.9	335.8	\$2,412	13.7	10.1	\$70	12.7	9.7	\$67	12.8	9.9	\$67	13.0	10.0	\$68	16.8	12.0	\$81	18.6	16.1	\$109
Total	196.7	120.1	\$570	1,171.3	1,126.3	\$7,718	649.0	393.5	\$2,264	663.6	400.3	\$2,320	684.7	414.4	\$2,387	695.7	426.7	\$2,426	708.3	444.3	\$2,603	745.6	633.4	\$2,872

Table F-11.1
Roadway Lane Mile Requirements
Base Year 2000 /w CIP Network

April 19, 2004

Community Planning Area	LOS E/F Lane Miles (mi)				Additional Lane Miles Required (mi)				Cost (\$M)			
	County CE	State Highway	State Freeway	Total	County CE	State Highway	State Freeway	Total	County CE	State Highway	State Freeway	Total
Bonsall	4.6	7.3	0.0	12.0	2.3	9.6	0.0	11.9	7	77	0	84
Fallbrook	23.8	0.3	0.0	24.1	12.3	0.3	0.0	12.6	37	2	0	39
North County Metro	24.4	0.0	1.2	25.6	12.6	0.0	0.4	13.0	38	0	5	43
Pala-Pauma	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0
Pendleton-De Luz	1.1	0.0	0.0	1.1	0.6	0.0	0.0	0.6	2	0	0	2
Rainbow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0
Ramona	5.0	6.1	0.0	11.1	2.5	11.1	0.0	13.6	8	89	0	96
San Dieguito	23.6	0.0	0.0	23.6	15.4	0.0	0.0	15.4	46	0	0	46
Valley Center	10.9	0.0	0.0	10.9	5.4	0.0	0.0	5.4	16	0	0	16
North County	93.4	13.7	1.2	108.3	51.2	21.0	0.4	72.6	\$154	\$168	\$5	\$326
Alpine	4.0	0.0	0.0	4.0	2.0	0.0	0.0	2.0	6	0	0	6
Barona	5.7	0.0	0.0	5.7	2.9	0.0	0.0	2.9	9	0	0	9
County Islands	0.1	0.0	8.5	8.7	0.1	0.0	2.1	2.1	0	0	25	25
Crest-Dehesa	4.1	0.0	0.0	4.1	2.1	0.0	0.0	2.1	6	0	0	6
Jamul-Dulzura	0.0	5.2	0.0	5.2	0.0	3.1	0.0	3.1	0	25	0	25
Lakeside	17.9	8.0	1.7	27.7	9.2	7.6	0.9	17.6	28	61	10	99
Otay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0
Spring Valley	9.1	0.6	0.0	9.7	4.8	0.5	0.0	5.3	15	4	0	18
Sweetwater	7.3	1.7	1.3	10.3	3.8	0.9	0.6	5.3	11	7	8	26
Valle De Oro	10.1	2.9	0.0	12.9	5.2	1.9	0.0	7.1	16	15	0	31
East County	58.4	18.5	11.5	88.4	30.0	13.9	3.6	47.5	\$90	\$111	\$43	\$244
Central Mountain	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0
Desert/Borrego Sprngs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0
Julian	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0
Mountain Empire	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0
Palomar / N. Mountain	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0
Backcountry	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	\$0	\$0	\$0	\$0
Total	151.8	32.2	12.7	196.7	81.2	34.9	4.0	120.1	\$244	\$279	\$47	\$570

Table F-11.2
Roadway Lane Mile Requirements
Existing General Plan /w CIP Network

April 19, 2004

Community Planning Area	LOS E/F Lane Miles (mi)				Additional Lane Miles Required (mi)				Cost (\$M)			
	County CE	State Highway	State Freeway	Total	County CE	State Highway	State Freeway	Total	County CE	State Highway	State Freeway	Total
Bonsall	30.3	9.1	19.9	59.3	22.8	33.5	5.0	61.3	68	268	60	396
Fallbrook	60.1	16.1	37.9	114.1	39.7	44.6	9.5	93.7	119	357	114	589
North County Metro	46.6	7.6	38.2	92.5	28.4	14.8	10.6	53.8	85	118	127	331
Pala-Pauma	18.1	52.2	0.0	70.3	9.9	149.6	0.0	159.5	30	1197	0	1226
Pendleton-De Luz	17.7	0.0	139.0	156.8	9.6	0.0	67.5	77.1	29	0	810	839
Rainbow	4.2	0.0	2.5	6.7	2.1	0.0	0.6	2.7	6	0	8	14
Ramona	34.1	34.4	0.0	68.5	19.0	63.2	0.0	82.2	57	505	0	562
San Dieguito	41.8	0.0	0.0	41.8	24.8	0.0	0.0	24.8	74	0	0	74
Valley Center	69.1	0.0	0.0	69.1	37.6	0.0	0.0	37.6	113	0	0	113
North County	322.0	119.5	237.7	679.2	193.8	305.6	93.2	592.6	\$581	\$2,445	\$1,118	\$4,145
Alpine	8.9	0.0	4.3	13.2	5.9	0.0	2.2	8.0	18	0	26	44
Barona	13.7	0.0	0.0	13.7	9.7	0.0	0.0	9.7	29	0	0	29
County Islands	0.1	0.0	6.2	6.3	0.1	0.0	1.6	1.7	0	0	19	20
Crest-Dehesa	17.9	0.0	0.0	17.9	10.3	0.0	0.0	10.3	31	0	0	31
Jamul-Dulzura	13.9	26.6	0.0	40.5	7.7	41.1	0.0	48.8	23	329	0	352
Lakeside	49.1	11.1	25.4	85.6	34.9	13.2	13.5	61.7	105	106	162	373
Otay	17.8	0.0	0.0	17.8	20.9	0.0	0.0	20.9	63	0	0	63
Spring Valley	9.4	0.0	16.7	26.0	6.1	0.0	8.8	14.9	18	0	105	124
Sweetwater	7.3	0.0	2.6	10.0	3.4	0.0	2.4	5.8	10	0	28	38
Valle De Oro	15.8	6.3	1.3	23.3	8.7	6.8	0.6	16.1	26	54	8	88
East County	153.9	44.0	56.4	254.3	107.7	61.1	29.1	197.9	\$323	\$489	\$349	\$1,161
Central Mountain	0.0	39.2	0.0	39.2	0.0	66.2	0.0	66.2	0	530	0	530
Desert/Borrego Springs	57.5	0.0	0.0	57.5	32.1	0.0	0.0	32.1	96	0	0	96
Julian	8.2	25.6	0.0	33.7	4.1	38.5	0.0	42.6	12	308	0	320
Mountain Empire	0.8	2.9	0.0	3.8	0.4	1.5	0.0	1.9	1	12	0	13
Palomar / N. Mountain	36.4	67.2	0.0	103.7	18.2	174.8	0.0	193.0	55	1399	0	1453
Backcountry	103.0	134.9	0.0	237.9	54.9	281.0	0.0	335.8	\$165	\$2,248	\$0	\$2,412
Total	578.9	298.3	294.1	1171.3	356.4	647.7	122.3	1126.3	\$1,069	\$5,182	\$1,467	\$7,718

Table F-11.3
Roadway Lane Mile Requirements
December '02 WC Map /w CIP Network

April 19, 2004

Community Planning Area	LOS E/F Lane Miles (mi)				Additional Lane Miles Required (mi)				Cost (\$M)			
	County CE	State Highway	State Freeway	Total	County CE	State Highway	State Freeway	Total	County CE	State Highway	State Freeway	Total
Bonsall	27.6	9.1	0.0	36.7	20.4	23.2	0.0	43.7	61	186	0	247
Fallbrook	57.3	12.4	24.5	94.2	35.7	15.6	6.1	57.4	107	125	74	305
North County Metro	35.9	4.2	12.3	52.4	21.8	3.9	3.4	29.1	65	31	41	138
Pala-Pauma	3.4	2.5	0.0	5.9	1.7	2.5	0.0	4.2	5	20	0	25
Pendleton-De Luz	2.0	0.0	131.0	133.0	1.7	0.0	32.7	34.4	5	0	393	398
Rainbow	5.0	0.0	2.5	7.5	2.5	0.0	0.6	3.1	8	0	8	15
Ramona	15.9	23.1	0.0	39.0	8.9	29.3	0.0	38.2	27	234	0	261
San Dieguito	39.1	0.0	0.0	39.1	23.4	0.0	0.0	23.4	70	0	0	70
Valley Center	36.1	0.0	0.0	36.1	16.8	0.0	0.0	16.8	50	0	0	50
North County	222.1	51.4	170.3	443.8	132.9	74.5	42.9	250.4	\$399	\$596	\$515	\$1,510
Alpine	8.3	0.0	0.0	8.3	6.1	0.0	0.0	6.1	18	0	0	18
Barona	13.7	0.0	0.0	13.7	9.7	0.0	0.0	9.7	29	0	0	29
County Islands	0.1	0.0	6.2	6.3	0.1	0.0	1.6	1.7	0	0	19	20
Crest-Dehesa	12.1	0.0	0.0	12.1	6.8	0.0	0.0	6.8	20	0	0	20
Jamul-Dulzura	6.8	16.0	0.0	22.8	3.4	13.3	0.0	16.7	10	106	0	116
Lakeside	38.2	6.6	9.2	54.0	25.4	7.2	4.6	37.1	76	57	55	189
Otay	17.0	0.0	2.3	19.3	21.6	0.0	0.8	22.4	65	0	9	74
Spring Valley	9.4	0.0	16.0	25.4	6.1	0.0	9.0	15.1	18	0	108	126
Sweetwater	7.3	0.0	2.6	10.0	3.4	0.0	2.4	5.8	10	0	28	38
Valle De Oro	15.8	2.7	1.3	19.8	8.7	2.4	0.6	11.8	26	19	8	53
East County	128.6	25.3	37.6	191.5	91.3	22.9	18.9	133.1	\$274	\$183	\$227	\$684
Central Mountain	0.0	1.2	0.0	1.2	0.0	0.7	0.0	0.7	0	6	0	6
Desert/Borrego Springs	3.9	0.0	0.0	3.9	2.2	0.0	0.0	2.2	7	0	0	7
Julian	0.0	1.0	0.0	1.0	0.0	0.5	0.0	0.5	0	4	0	4
Mountain Empire	0.0	2.9	0.0	2.9	0.0	1.5	0.0	1.5	0	12	0	12
Palomar / N. Mountain	0.0	4.7	0.0	4.7	0.0	5.2	0.0	5.2	0	42	0	42
Backcountry	3.9	9.8	0.0	13.7	2.2	7.9	0.0	10.1	\$7	\$63	\$0	\$70
Total	354.6	86.5	207.8	649.0	226.4	105.3	61.8	393.5	\$679	\$842	\$742	\$2,264

Table F-11.4
Roadway Lane Mile Requirements
August '03 WC Map /w CIP Network

April 19, 2004

Community Planning Area	LOS E/F Lane Miles (mi)				Additional Lane Miles Required (mi)				Cost (\$M)			
	County CE	State Highway	State Freeway	Total	County CE	State Highway	State Freeway	Total	County CE	State Highway	State Freeway	Total
Bonsall	28.7	9.1	6.8	44.6	21.3	23.2	1.7	46.3	64	186	20	270
Fallbrook	57.3	12.4	24.5	94.2	35.7	15.6	6.1	57.4	107	125	74	305
North County Metro	35.9	4.2	12.3	52.4	21.8	3.9	3.4	29.1	65	31	41	138
Pala-Pauma	3.4	2.5	0.0	5.9	1.7	2.5	0.0	4.2	5	20	0	25
Pendleton-De Luz	2.0	0.0	131.0	133.0	1.7	0.0	32.7	34.4	5	0	393	398
Rainbow	5.0	0.0	2.5	7.5	2.5	0.0	0.6	3.1	8	0	8	15
Ramona	13.3	26.9	0.0	40.2	6.7	33.7	0.0	40.4	20	270	0	290
San Dieguito	39.1	0.0	0.0	39.1	23.4	0.0	0.0	23.4	70	0	0	70
Valley Center	42.5	0.0	0.0	42.5	19.0	0.0	0.0	19.0	57	0	0	57
North County	227.1	55.2	177.1	459.5	133.7	79.0	44.6	257.3	\$401	\$632	\$536	\$1,568
Alpine	8.3	0.0	0.0	8.3	6.1	0.0	0.0	6.1	18	0	0	18
Barona	13.7	0.0	0.0	13.7	9.7	0.0	0.0	9.7	29	0	0	29
County Islands	0.1	0.0	6.2	6.3	0.1	0.0	1.6	1.7	0	0	19	20
Crest-Dehesa	12.1	0.0	0.0	12.1	6.9	0.0	0.0	6.9	21	0	0	21
Jamul-Dulzura	6.8	16.0	0.0	22.8	3.4	13.3	0.0	16.7	10	106	0	116
Lakeside	38.2	6.6	9.2	54.0	25.4	7.2	4.6	37.1	76	57	55	189
Otay	17.0	0.0	2.3	19.3	21.6	0.0	0.8	22.4	65	0	9	74
Spring Valley	9.4	0.0	16.0	25.4	6.1	0.0	9.0	15.1	18	0	108	126
Sweetwater	7.3	0.0	2.6	10.0	3.4	0.0	2.4	5.8	10	0	28	38
Valle De Oro	15.8	2.7	1.3	19.8	8.7	2.4	0.6	11.8	26	19	8	53
East County	128.6	25.3	37.6	191.5	91.4	22.9	18.9	133.2	\$274	\$183	\$227	\$684
Central Mountain	0.0	1.2	0.0	1.2	0.0	0.7	0.0	0.7	0	6	0	6
Desert/Borrego Springs	3.9	0.0	0.0	3.9	2.2	0.0	0.0	2.2	7	0	0	7
Julian	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0
Mountain Empire	0.0	2.9	0.0	2.9	0.0	1.5	0.0	1.5	0	12	0	12
Palomar / N. Mountain	0.0	4.7	0.0	4.7	0.0	5.4	0.0	5.4	0	43	0	43
Backcountry	3.9	8.9	0.0	12.7	2.2	7.5	0.0	9.7	\$7	\$60	\$0	\$67
Total	359.6	89.3	214.6	663.6	227.4	109.4	63.5	400.3	\$682	\$875	\$762	\$2,320

Table F-11.5
Roadway Lane Mile Requirements
BOS Referrals /w CIP Network

April 19, 2004

Community Planning Area	LOS E/F Lane Miles (mi)				Additional Lane Miles Required (mi)				Cost (\$M)			
	County CE	State Highway	State Freeway	Total	County CE	State Highway	State Freeway	Total	County CE	State Highway	State Freeway	Total
Bonsall	31.3	9.1	6.8	47.3	22.6	25.3	1.7	49.6	68	202	20	290
Fallbrook	57.3	12.4	24.5	94.2	35.7	17.8	6.1	59.6	107	143	74	323
North County Metro	42.8	4.2	12.3	59.3	25.2	3.9	3.4	32.6	76	31	41	148
Pala-Pauma	3.4	2.5	0.0	5.9	1.7	2.5	0.0	4.2	5	20	0	25
Pendleton-De Luz	2.0	0.0	131.0	133.0	1.7	0.0	32.7	34.4	5	0	393	398
Rainbow	5.0	0.0	2.5	7.5	2.5	0.0	0.6	3.1	8	0	8	15
Ramona	13.3	26.9	0.0	40.2	6.7	33.7	0.0	40.4	20	270	0	290
San Diegouito	41.4	0.0	0.0	41.4	24.9	0.0	0.0	24.9	75	0	0	75
Valley Center	45.7	0.0	0.0	45.7	21.4	0.0	0.0	21.4	64	0	0	64
North County	242.2	55.2	177.1	474.5	142.3	83.2	44.6	270.2	\$427	\$666	\$536	\$1,628
Alpine	8.3	0.0	0.0	8.3	6.1	0.0	0.0	6.1	18	0	0	18
Barona	13.7	0.0	0.0	13.7	9.7	0.0	0.0	9.7	29	0	0	29
County Islands	0.1	0.0	7.4	7.5	0.1	0.0	1.9	2.0	0	0	23	23
Crest-Dehesa	16.4	0.0	0.0	16.4	7.5	0.0	0.0	7.5	22	0	0	22
Jamul-Dulzura	7.1	16.0	0.0	23.1	3.6	13.4	0.0	17.0	11	108	0	118
Lakeside	38.2	6.6	9.2	54.0	25.4	7.2	4.6	37.1	76	57	55	189
Otay	17.0	0.0	2.3	19.3	21.6	0.0	0.8	22.4	65	0	9	74
Spring Valley	9.4	0.0	16.0	25.4	6.1	0.0	9.0	15.1	18	0	108	126
Sweetwater	7.3	0.0	2.6	10.0	3.4	0.0	2.4	5.8	10	0	28	38
Valle De Oro	15.8	2.7	1.3	19.8	8.7	2.4	0.6	11.8	26	19	8	53
East County	133.3	25.3	38.8	197.3	92.2	23.1	19.2	134.4	\$276	\$184	\$231	\$691
Central Mountain	0.0	1.2	0.0	1.2	0.0	0.7	0.0	0.7	0	6	0	6
Desert/Borrego Springs	4.0	0.0	0.0	4.0	2.3	0.0	0.0	2.3	7	0	0	7
Julian	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0
Mountain Empire	0.0	2.9	0.0	2.9	0.0	1.5	0.0	1.5	0	12	0	12
Palomar / N. Mountain	0.0	4.7	0.0	4.7	0.0	5.4	0.0	5.4	0	43	0	43
Backcountry	4.0	8.9	0.0	12.8	2.3	7.6	0.0	9.9	\$7	\$60	\$0	\$67
Total	379.5	89.3	215.8	684.7	236.7	113.8	63.8	414.4	\$710	\$911	\$766	\$2,387

Table F-11.6
Roadway Lane Mile Requirements
BOS Referrals /w Pipeline Projects /w CIP Network

April 19, 2004

Community Planning Area	LOS E/F Lane Miles (mi)				Additional Lane Miles Required (mi)				Cost (\$M)			
	County CE	State Highway	State Freeway	Total	County CE	State Highway	State Freeway	Total	County CE	State Highway	State Freeway	Total
Bonsall	31.6	9.1	6.8	47.5	22.8	25.3	1.7	49.7	68	202	20	291
Fallbrook	57.3	12.4	24.5	94.2	35.7	17.8	6.1	59.6	107	143	74	323
North County Metro	51.6	4.2	12.3	68.2	34.6	3.9	3.4	42.0	104	31	41	176
Pala-Pauma	3.4	2.5	0.0	5.9	1.7	2.5	0.0	4.2	5	20	0	25
Pendleton-De Luz	2.0	0.0	131.0	133.0	1.7	0.0	32.7	34.4	5	0	393	398
Rainbow	5.0	0.0	2.5	7.5	2.5	0.0	0.6	3.1	8	0	8	15
Ramona	14.3	26.9	0.0	41.2	7.2	33.7	0.0	40.9	21	270	0	291
San Diegouito	41.4	0.0	0.0	41.4	24.9	0.0	0.0	24.9	75	0	0	75
Valley Center	45.7	0.0	0.0	45.7	21.4	0.0	0.0	21.4	64	0	0	64
North County	252.3	55.2	177.1	484.6	152.4	83.2	44.6	280.2	\$457	\$666	\$536	\$1,658
Alpine	8.3	0.0	0.0	8.3	6.1	0.0	0.0	6.1	18	0	0	18
Barona	13.7	0.0	0.0	13.7	9.7	0.0	0.0	9.7	29	0	0	29
County Islands	0.1	0.0	7.4	7.5	0.1	0.0	1.9	2.0	0	0	23	23
Crest-Dehesa	16.4	0.0	0.0	16.4	9.1	0.0	0.0	9.1	27	0	0	27
Jamul-Dulzura	6.8	16.0	0.0	22.8	3.4	13.4	0.0	16.9	10	108	0	118
Lakeside	38.5	7.3	9.2	55.0	25.5	7.6	4.6	37.6	76	61	55	192
Otay	17.0	0.0	2.3	19.3	21.6	0.0	0.8	22.4	65	0	9	74
Spring Valley	9.4	0.0	16.0	25.4	6.1	0.0	9.0	15.1	18	0	108	126
Sweetwater	7.3	0.0	2.6	10.0	3.4	0.0	2.4	5.8	10	0	28	38
Valle De Oro	15.8	2.7	1.3	19.8	8.7	2.4	0.6	11.8	26	19	8	53
East County	133.3	26.1	38.8	198.1	93.8	23.5	19.2	136.5	\$281	\$188	\$231	\$700
Central Mountain	0.0	1.2	0.0	1.2	0.0	0.7	0.0	0.7	0	6	0	6
Desert / Borrego Springs	4.0	0.0	0.0	4.0	2.3	0.0	0.0	2.3	7	0	0	7
Julian	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0
Mountain Empire	0.0	3.1	0.0	3.1	0.0	1.6	0.0	1.6	0	13	0	13
Palomar / North Mountain	0.0	4.7	0.0	4.7	0.0	5.4	0.0	5.4	0	43	0	43
Backcountry	4.0	9.0	0.0	13.0	2.3	7.7	0.0	10.0	\$7	\$61	\$0	\$68
Total	389.6	90.3	215.8	695.7	248.4	114.4	63.8	426.7	\$745	\$915	\$766	\$2,426

Table F-11.7
Roadway Lane Mile Requirements
BOS Referrals w/o 80's & 160's /w CIP Network

April 19, 2004

Community Planning Area	LOS E/F Lane Miles (mi)				Additional Lane Miles Required (mi)				Cost (\$M)			
	County CE	State Highway	State Freeway	Total	County CE	State Highway	State Freeway	Total	County CE	State Highway	State Freeway	Total
Bonsall	31.3	9.1	6.8	47.3	22.6	25.5	1.7	49.9	68	204	20	293
Fallbrook	57.3	12.4	24.5	94.2	35.1	19.9	6.1	61.1	105	159	74	338
North County Metro	42.8	4.9	12.3	59.9	25.6	5.7	3.4	34.7	77	45	41	163
Pala-Pauma	1.8	13.3	0.0	15.1	0.9	13.3	0.0	14.2	3	106	0	109
Pendleton-De Luz	2.0	0.0	131.0	133.0	1.7	0.0	32.7	34.4	5	0	393	398
Rainbow	5.0	0.0	2.5	7.5	2.5	0.0	0.6	3.1	8	0	8	15
Ramona	14.9	31.5	0.0	46.3	7.4	42.2	0.0	49.6	22	337	0	360
San Dieguito	41.4	0.0	0.0	41.4	24.9	0.0	0.0	24.9	75	0	0	75
Valley Center	45.7	0.0	0.0	45.7	22.4	0.0	0.0	22.4	67	0	0	67
North County	242.2	71.2	177.1	490.5	143.1	106.5	44.6	294.3	\$429	\$852	\$536	\$1,817
Alpine	9.8	0.0	0.0	9.8	6.9	0.0	0.0	6.9	21	0	0	21
Barona	13.7	0.0	0.0	13.7	9.7	0.0	0.0	9.7	29	0	0	29
County Islands	0.1	0.0	7.4	7.5	0.1	0.0	1.9	2.0	0	0	23	23
Crest-Dehesa	16.4	0.0	0.0	16.4	9.1	0.0	0.0	9.1	27	0	0	27
Jamul-Dulzura	6.8	16.0	0.0	22.8	3.4	13.4	0.0	16.9	10	108	0	118
Lakeside	40.3	6.6	9.7	56.6	26.4	7.2	4.8	38.4	79	58	58	195
Otay	17.0	0.0	2.3	19.3	21.6	0.0	0.8	22.4	65	0	9	74
Spring Valley	9.4	0.0	16.0	25.4	6.1	0.0	9.0	15.1	18	0	108	126
Sweetwater	7.3	0.0	2.6	10.0	3.4	0.0	2.4	5.8	10	0	28	38
Valle De Oro	15.8	2.7	1.3	19.8	8.7	2.4	0.6	11.8	26	19	8	53
East County	136.7	25.3	39.2	201.2	95.5	23.1	19.5	138.0	\$287	\$185	\$233	\$705
Central Mountain	0.0	1.1	0.0	1.1	0.0	0.7	0.0	0.7	0	6	0	6
Desert / Borrego Springs	4.3	0.0	0.0	4.3	2.9	0.0	0.0	2.9	9	0	0	9
Julian	0.0	1.0	0.0	1.0	0.0	0.5	0.0	0.5	0	4	0	4
Mountain Empire	0.0	3.2	0.0	3.2	0.0	1.7	0.0	1.7	0	13	0	13
Palomar / N. Mountain	0.0	7.3	0.0	7.3	0.0	6.2	0.0	6.2	0	50	0	50
Backcountry	4.3	12.5	0.0	16.8	2.9	9.1	0.0	12.0	\$9	\$73	\$0	\$81
Total	383.1	108.9	216.3	708.4	241.5	138.7	64.1	444.3	\$724	\$1,110	\$769	\$2,603